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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
09/775,491	02/02/2001	Scott Adams	4341P053	7754

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12/24/2002

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EXAMINER

TAMAI, KARL I

ART UNIT

PAPER NUMBER

2834

DATE MAILED: 12/24/2002

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary

Application No.

09/775,491

Applicant(s)

ADAMS ET AL.

Examiner

Tamai IE Karl

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-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --
Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133).
- Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 28 October 2002.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-119 is/are pending in the application.
- 4a) Of the above claim(s) 17-34,47-83,97-103 and 106-119 is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 1-16,35-46,84-96,104 and 105 is/are rejected.
- 7) ☐ Claim(s) _____ is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☒ The specification is objected to by the Examiner.
- 10) ☒ The drawing(s) filed on 02 February 2001 is/are: a) ☐ accepted or b) ☒ objected to by the Examiner.
- Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
- 11) ☐ The proposed drawing correction filed on _____ is: a) ☐ approved b) ☐ disapproved by the Examiner.
- If approved, corrected drawings are required in reply to this Office action.
- 12) ☐ The oath or declaration is objected to by the Examiner.

Priority under 35 U.S.C. §§ 119 and 120

- 13) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some * c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
2. ☐ Certified copies of the priority documents have been received in Application No. _____.
3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).
- * See the attached detailed Office action for a list of the certified copies not received.
- 14) ☒ Acknowledgment is made of a claim for domestic priority under 35 U.S.C. § 119(e) (to a provisional application).
- a) ☐ The translation of the foreign language provisional application has been received.
- 15) ☐ Acknowledgment is made of a claim for domestic priority under 35 U.S.C. §§ 120 and/or 121.

Attachment(s)

- 1) ☒ Notice of References Cited (PTO-892)
- 2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
- 3) ☐ Information Disclosure Statement(s) (PTO-1449) Paper No(s) _____
- 4) ☐ Interview Summary (PTO-413) Paper No(s). _____
- 5) ☐ Notice of Informal Patent Application (PTO-152)
- 6) ☐ Other: _____

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DETAILED ACTION

Election/Restrictions

1. Applicant's election without traverse of Group I, Claims 1-16, 23-46, 84-96, and 104-106 in Paper No. 18 is acknowledged. Group II, Claims 23-34 and 106 are withdrawn from consideration, as well as claims 17-22, 97-103, and 107-115 from a prior election.

Drawings

2. The drawings are objected to under 37 CFR 1.83(a). The drawings must show every feature of the invention specified in the claims. Therefore, the additional surfaces on which the traces are disposed (Claim 87) and the traces positioned on the stage and flexure couple to the second blade (frame) (claim 88) must be shown or the feature canceled from the claims. No new matter should be entered.

A proposed drawing correction or corrected drawings are required in reply to the Office action to avoid abandonment of the application. The objection to the drawings will not be held in abeyance.

Information Disclosure Statement

3. The Information Disclosure Statement filed as paper 5, 10, 12, 13, 15, and 17 have been placed in the application but references will not be considered by the examiner. Applicants inundated the Examiner with a large volume of prior art that is not material and may obscure a single reference that is material and thus may be effective as improper as withholding a material reference. *Ex Parte Morning Surf Corp.*,

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230 USPQ 446, and *Penn Yan Boats, Inc. v. Sea Lark Boats, Inc.*, 359 F. Supp. 948, 175 USPQ 260 (S.D. Fla. 1972).

4. "Significantly, an applicant's duty of disclosure of material and information is not satisfied by presenting a patent examiner with "a mountain of largely irrelevant [material] from which he is *presumed* to have been able, with his expertise and with adequate time, to have found the critical [material]. It ignores the real world conditions under which examiners work." *Rohm & Haas Co. v. Crystal Chemical Co.* 722 F.2d 1556, 1573 [220 USPQ 289], (Fed.Cir., 1983).

5. The information disclosure statement filed as papers 5, 10, 12, 13, 15, and 17 fails to comply with the provisions of 37 CFR 1.97, 1.98 and MPEP § 609 because they do not provide a statement as to the relevance of each reference. It has been placed in the application file, but the information referred to therein has not been considered as to the merits. Applicant is advised that the date of any re-submission of any item of information contained in this information disclosure statement or the submission of any missing elements will be the date of submission for purposes of determining compliance with the requirements based on the time of filing the statement, including all certification requirements for statements under 37 CFR 1.97(e). See MPEP § 609 ¶ C(1).

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Specification

6. The specification has not been checked to the extent necessary to determine the presence of all possible minor errors. Applicant's cooperation is requested in correcting any errors of which applicant may become aware in the specification.

7. The specification is objected to as failing to provide proper antecedent basis for the claimed subject matter. See 37 CFR 1.75(d)(1) and MPEP § 608.01(o). Correction of the following is required: first side, second side, first width, second width, and the additional surface of the stage.

8. The title of the invention is not descriptive. A new title is required that is clearly indicative of the invention to which the claims are directed.

Claim Rejections - 35 USC § 112

9. The following is a quotation of the second paragraph of 35 U.S.C. 112:

The specification shall conclude with one or more claims particularly pointing out and distinctly claiming the subject matter which the applicant regards as his invention.

10. Claims 5, 16, and 88 are rejected under 35 U.S.C. 112, second paragraph, as being indefinite for failing to particularly point out and distinctly claim the subject matter which applicant regards as the invention. Claim 5 recites the limitation "the moveable frame". Claim 16 recites the limitation "the flexure". There is insufficient antecedent basis for these limitations in the claims. Claim 88 is vague and indefinite because it is unclear how the electrical trace will be coupled to the second blade (on the frame) when it is positioned on the additional surface of the stage and the flexure.

Claim Rejections - 35 USC § 102

11. The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.

(e) the invention was described in-

(1) an application for patent, published under section 122(b), by another filed in the United States before the invention by the applicant for patent, except that an international application filed under the treaty defined in section 351(a) shall have the effect under this subsection of a national application published under section 122(b) only if the international application designating the United States was published under Article 21(2)(a) of such treaty in the English language; or

(2) a patent granted on an application for patent by another filed in the United States before the invention by the applicant for patent, except that a patent shall not be deemed filed in the United States for the purposes of this subsection based on the filing of an international application filed under the treaty defined in section 351(a).

12. Claims 1-3, 6-9, 11-14, 16, 84-86, and 89-96, 105 are rejected under 35

U.S.C. 102(b) as being anticipated by Nakagawa et al. (Nakagawa)(JP 4-343,318).

Nakagawa teaches a stage 1 having blades 4a which extend perpendicular to the upper surface of the stage, where the stage is surrounded by a frame having a surface 15a with blades extending perpendicular to the frame. The first and second blades being perpendicular to each other with the distance between the blades being maintained during relative motion of the blades. The stage supported by non-parallel beams 3a and 3b.

13. Claims 1-3, 6-9, 11-14, 16, 84-86, and 89-96, 105 are rejected under 35

U.S.C. 102(b) as being anticipated by Yamada et al. (Yamada)(US 5,959,760).

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Yamada teaches a stage with a mirror 2 having blades 5 which extend perpendicular to the upper surface of the stage, where the stage is surrounded by a frame 6 having a surface with blades 7a,b extending perpendicular to the frame. The first and second blades being perpendicular to each other with the distance between the blades being maintained during relative motion of the blades. The stage supported by non-parallel beams 3a and 3b.

14. Claims 1-3, 8, 9, 11-14, 16, 35-40, 42-44, 84, 85, 87, 88, 91-96, 104, and 105 are rejected under 35 U.S.C. 102(e) as being anticipated by Kino et al. (Kino)(US 6,075,639). Kino teaches a central stage 37 with a lower surface secured to a rotatable frame 38 by a pair of flexures 42 where the movable frame is secured to a fixed frame 33 by a pair of flexures 42, and where the moveable frame and central stage are capable of decouple motion. Kino teaches a plurality blades 47, 48, 52, 53 extending from the movable frame and the upper/additional central stage which are parallel to each other and electrically isolated from each other. The moveable frame 38 of Kino has a main body, an end bar, and a support member integrally formed together. The first blade 47 passes the second and third blades, 52, 53 as it rotates in opposite directions. Kino teaches electrical traces to the blades on the upper/additional surface and on the frame.

Claim Rejections - 35 USC § 103

15. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

16. Claims 4, 5, and 15 are rejected under 35 U.S.C. 103(a) as being unpatentable over Nakagawa et al. (Nakagawa)(JP 4-343,318) and Suzuki (US 5,554,304).

Nakagawa teaches every aspect of the invention except the blades being tapered with a different widths. Suzuki teaches the electrodes are tapered with different widths to control the required driving forces between the electrodes. It would have been obvious to a person of ordinary skill in the art at the time of the invention to construct the actuator of Nakagawa with the tapered blades because Suzuki teaches that a smaller driving force is required from taper electrodes.

17. Claim 10 are rejected under 35 U.S.C. 103(a) as being unpatentable over Nakagawa et al. (Nakagawa)(JP 4-343,318) and Knipe et al. (Knipe)(US 5,739,941).

Nakagawa teaches every aspect of the invention except the torsion beams being parallel. Knipe teaches parallel torsion beams 12 to provide a greater restoring force. It would have been obvious to a person of ordinary skill in the art at the time of the invention to construct the actuator of Nakagawa with the parallel torsion beams of Knipe to provide a greater restoring force.


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18. Claims 10 and 41 are rejected under 35 U.S.C. 103(a) as being unpatentable over Kino et al. (Kino)(US 6,075,639) and Knipe et al. (Knipe)(US 5,739,941). Kino teaches every aspect of the invention except the torsion beams being parallel. Knipe teaches parallel torsion beams 12 to provide a greater restoring force. It would have been obvious to a person of ordinary skill in the art at the time of the invention to construct the actuator of Kino with the parallel torsion beams of Knipe to provide a greater restoring force.

19. Claims 45 and 46 are rejected under 35 U.S.C. 103(a) as being unpatentable over Kino et al. (Kino)(US 6,075,639) and Michalicek et al. (Michalicek)(US 6,028,689). Kino teaches every aspect of the invention except the plurality of actuators. Michalicek teaches a mirror assembly of actuators. It would have been obvious to a person of ordinary skill in the art at the time of the invention to construct a plurality actuators as shown in Kino because Michalek teaches the multiple actuator form an array for use as an optical switch.

20. Any inquiry concerning this communication or earlier communications from the examiner should be directed to Karl I.E. Tamai whose telephone number is (703) 305-7066. If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Mr. Nestor Ramirez, can be reached at (703) 308-1371. Any inquiry of a general nature or relating to the status of this application or proceeding should be directed to the Group receptionist at (703) 308-0956.

Karl I Tamai
PRIMARY PATENT EXAMINER
December 19, 2002


KARL TAMAI
PRIMARY EXAMINER